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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,831	Applicant(s) HUSEMANN ET AL.	
	Examiner ANISH DESAI	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/03/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments in response to the Office action dated 02/12/08 have been fully considered.
2. Claims 1 and 3-18 are pending. Support for newly amended claims 1, 17, and 18 is found in specification. It is noted that Applicant has now incorporated claim 2 limitations in claim 1.
3. In view of Applicant's response, the Examiner is withdrawing his comments as set forth in Section 4 of 02/12/08 Office Action regarding the IDS submitted on 05/03/05. However, the aforementioned IDS still fails to comply with 37 CFR 1.98(a)(3) for the reasons provided in the Section 5 of 02/12/08 Office Action.
4. The 35 USC Section 102 (b) rejections based on Chao (US Statutory Invention Registration H0,000,509) are withdrawn, because Chao does not teach PSA comprising thermal crosslinkers as presently claimed.
5. The 35 USC Section 102(b) rejections based on Buccellato et al. (WO 9824978A) are maintained. US 6,861,141B2 to Buccellato et al. is relied upon as an equivalent document for convenience.
6. The 35 USC Section 102 (b) rejections based on Bennett et al. (US 5,602,221) are withdrawn, because Bennett does not teach PSA comprising thermal crosslinkers as presently claimed.
7. The 35 USC Section 102(b) rejections based on Bennett et al. (WO 95/13328) are withdrawn, because Bennett does not teach PSA comprising thermal crosslinkers as presently claimed.

8. A new 35 USC Section 103(a) rejections based on Bennett et al. (WO 95/13328) in view of McLaughlin et al. (US 6,365,793B1) are made.

Information Disclosure Statement

9. The information disclosure statement filed 05/03/05 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

10. There is no concise explanation of relevance provided for the foreign language document titled "Houben Weyl, Methoden der Organischen...60-147". This document has been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

11. Claim 4 is objected to because of the following informalities: claim 4 depends from the cancelled claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 3-9, and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Buccellato et al. (WO 9824978A). US 6,861,141B2 to Buccellato et al. is relied upon as an equivalent document for convenience.

13. Regarding claim 1, Buccellato teaches a pavement making article that comprises a pressure sensitive adhesive, wherein the PSA polymer (polyacrylate polymer) is formed of a mixture comprising 55-90 parts by weight of a reaction product of acrylic acid ester of monohydric alcohol (equated to Applicant's 60%-85% by weight of acrylic/methacrylic esters (a)) and 10-45 parts by weight of a non-polar ethylenically unsaturated monomer such as isobornyl acrylate (equated to Applicant's 10%-40% by weight of isobornyl acrylate units) (see abstract, column 1 lines 50-67 to column 2 lines 1-50. Additionally, at column 6 lines 40-55, Buccellato teaches PSA composition including thermal crosslinking agents.

14. Regarding claim 3, Buccellato teaches that the PSA composition of his invention includes 0-10 parts by weight of polar ethylenically unsaturated monomers such as that of Applicant's benzyl acrylates, itaconic acid etc. (see column 2 lines 5-10 of Buccellato and pages 3-4 of the specification).

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15. Regarding claim 4, disclosure of Buccellato at column 1 lines 55-65 referring to various acrylic esters (e.g. butyl acrylate) reads on claim 4.

16. Regarding claims 5 and 13-15, at column 7 lines 30-40, Buccellato discloses PSA composition having miscible tackifier resins in the amount 1-50 parts by weight.

17. With respect to claim 6, Buccellato discloses that other ingredients such as fillers, plasticizers etc. can be added to the PSA composition as desired (column 17 lines 1-10).

18. Regarding claims 7-9 and 16, Buccellato at column 2 lines 25-30 discloses that the preferred articles include those in the form of tape, and at column 8 lines 5-10 Buccellato discloses adhesive layer having thickness of 127 micrometers. Further, the adhesive of Buccellato is applied to a release paper (see Example 1 and Example 2).

19. Regarding claim 11, Buccellato teaches PSA comprising 15-40 parts by weight of isobornyl acrylate (see column 1 lines 50-55, lines 65-67, and column 2 lines 1-5).

20. Regarding claim 12, the disclosure of Buccellato at column 1 lines 55-65 referring to various acrylic esters (e.g. butyl acrylate) reads on claim 12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buccellato et al. (WO 9824978A) alone. US 6,861,141B2 to Buccellato et al. is relied upon as an equivalent document for convenience

22. With respect to the invention of Buccellato, it is noted that Buccellato generally discloses **acrylic** acid ester based monomers. Claim 4 requires component (a) comprising acrylic **and** methacrylic esters. It is noted that in acrylic adhesive art, generally "acrylic ester" also includes "methacrylic esters". Therefore, regarding claims 4 and 12, it would have been obvious to add methacrylic esters motivated by the desire to suitably form acrylic adhesive.

23. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buccellato et al. (WO 9824978A) alone. US 6,861,141B2 to Buccellato et al. is relied upon as an equivalent document for convenience.

24. Regarding claim 10, Buccellato teaches a PSA tape having same PSA composition as that of claimed by Applicant in claim 1. Additionally, Buccellato discloses that the tape of his invention maintains adhesion with substrate under extreme

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conditions such as wind, water, freezing rain, snow and ice, automobile fluids (column 4 lines 20-25).

25. Therefore, in absence of unexpected results, it would have been obvious to bond the adhesive tape of Buccellato to automotive finishes, because the adhesive tape of Buccellato maintains its adhesion with substrate under extreme conditions such as wind, water, freezing rain, snow and ice, automobile fluids.

26. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buccellato et al. (WO 9824978A) as applied to claim 1 above, and further in view of McLaughlin et al. (US 6,365,793B1).

27. Buccellato is silent as to teaching of thermal crosslinkers as claimed in claims 17 and 18.

28. However, McLaughlin discloses a PSA tape substrate coated with PSA (abstract). Additionally, McLaughlin discloses that the adhesive may be thermally cross-linked acrylic adhesive, the cross-linking mechanism comprising a metal chelate such as aluminum acetylacetonate (column 7 lines 5-10).

29. It is noted that the primary reference of Buccellato generally discloses that the PSA of his invention can be crosslinked using thermal crosslinkers, except that Buccellato is silent as to teaching specific thermal crosslinkers as that of claimed by Applicant. Secondary reference of McLaughlin provides suitable thermal crosslinkers for acrylic PSA such as that of required by Applicant's claims.

30. Therefore, it would have been obvious to use metal chelaters as thermal crosslinkers as taught by McLaughlin, because selecting a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

31. Claims 1, 3-12, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (WO 95/13328) in view of McLaughlin et al. (US 6,365,793B1).

32. Regarding claim 1, Bennett discloses a PSA composition that is a polymerization product of a blend that includes 10-80 parts by weight of acrylic acid ester of monohydric alcohol (equated to Applicant (a)), 20-90% by weight of polar-ethylenically unsaturated monomer such as isobornyl acrylate (equated to Applicant's (b)) (see abstract and page 3 lines 10-30).

33. Bennett is silent as to teaching PSA comprising thermal crosslinkers as required by claims 1, 17, and 18.

34. However, the invention of McLaughlin is previously disclosed and it is incorporated here by reference.

35. It is noted that Bennett generally discloses addition of crosslinking agents to the acrylic based PSA of his/her invention (page 10 lines 1-10), except that Bennett does not disclose thermal crosslinking agents. Secondary reference of McLaughlin provides suitable thermal crosslikers for acrylic PSA such as that of required by Applicant's claims.

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36. Therefore, it would have been obvious to use metal chelaters as thermal crosslinkers as taught by McLaughlin, because selecting a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

37. Regarding claim 3, Bennett at page 8 lines 1-15, discloses that PSA of his/her invention can contain up to 5 parts by weight of polar ethylenically unsaturated monomers such as that of Applicant's preferred benzyl acrylate (see pages 3-4 of the specification).

38. With respect to claims 4 and 12, the disclosure of Bennett at page 3 lines 19-22 referring to various acrylic acid esters (e.g. butyl acrylate) reads on claims 4 and 12. Alternatively, it is noted that in acrylic adhesive art, generally "acrylic ester" also includes "methacrylic esters". Therefore, regarding claims 4 and 12, it would have been obvious to add methacrylic esters motivated by the desire to suitably form acrylic adhesive.

39. Regarding claims 5 and 6, Bennett discloses that the adhesive can be blended with tackifiers, plasticizers etc (page 11 lines 1-10).

40. With respect to claims 7-9 and 16, Bennett teaches a transfer tape at page 4 lines 1-4 and at page 12 lines 12-16, and coating of the adhesive on a transparent polyester liner (a film selected from the group consisting of polyester of claim 9) at a thickness of 19 to 21 mils (483 micrometer to 533 micrometer) (page 15 lines 1-5). Alternatively, regarding the thickness of the adhesive layer, selecting a suitable adhesive thickness would have been obvious, motivated by the desire to form an adhesive tape that can properly adhered to a substrate.

41. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (WO 95/13328) in view of McLaughlin et al. (US 6,365,793B1), as applied to claims 1 and 5, and further in view of Buccellato et al. (WO 98/24978A). US 6,861,141B2 to Buccellato et al. is relied upon as an equivalent document for convenience.

42. Bennett is silent as to teaching of the amount of tackifier as claimed. However, the invention of Buccellato is previously disclosed and it is incorporated here by reference.

43. Therefore, it would have been obvious to add the tackifier in the adhesive of Bennett in the amount taught by Buccellato, motivated by the desire to form an adhesive tape with suitable tackiness.

Response to Arguments

44. Applicant's arguments filed on 08/12/08 have been fully considered but they are not persuasive.

45. Applicant argues that the amendment to claim 1 renders the rejection of Buccellato moot. The Examiner respectfully submits that as set forth above in this Office Action, Buccellato reference anticipates currently amended claim 1. Therefore, the art rejections based on Buccellato are sustained.

46. As to Applicant's arguments regarding unexpected results, these arguments are not found persuasive for patentability because they are completely irrelevant to the basics of the rejections, namely whether it would have been obvious to add a thermal

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crosslinker into the PSA composition. The Examiner notes that isobornyl acrylate is a key contribution to the virtually constant adhesion strength to steel of the PSA composition as shown in Table 1 of Applicant's specification. Additionally, the amount of that comonomer is essential and critical to the bond strength of the PSA composition. However, nowhere does the showing teach or suggest that the thermal crosslinker plays a key role in determining the adhesion strength of the PSA composition. The showing does not prove unexpected results over the prior art. Thus, the showing is insufficient to overcome the finding of obviousness. Accordingly, the art rejections based on Bennett are sustained.

Conclusion

47. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

48. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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49. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

50. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

51. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794